

PEM-400

Polarization Extinction Ratio Meter



Product Overview

The PEM-400 is an instrument developed for high-volume testing of the polarization extinction ratio (PER) of polarization maintaining (PM) components such as fiber array units (FAU) and external laser small form-factor pluggables (ELSFP).

A polarizer is rotated in front of a high-speed power meter to measure PER up to 30 dB and angle of polarization. The insertion loss (IL) of passive components or the output power of active components can also be measured at the same time.

The unique optics of the detector allow it to measure across an entire multifiber connector or FA without repositioning the device under test (DUT) or using an alignment stage. The standard configuration has a 3 mm diameter detector. This allows the PEM-400 to perform automated multichannel PER measurements faster than any other commercially available solution. For example, a 12 fiber DUT can be measured in under 30 seconds.

For passive component testing, you can select a multichannel polarized source at either 1310 or 1550 nm with up to 24 outputs. Other wavelengths and higher channel counts are available upon request.

Features

- Built-in multichannel PM source
- Wide-area detector to capture PER on an entire multifiber connector or FAU
- 30 dB PER dynamic range



Applications

- High-volume production testing
- PER/angle/IL of FAU
- PER/angle/absolute power of ELSFP
- Incoming inspection
- QA and R&D testing

Optical / Electrical Specifications

Parameter	Unit	Specification
Output Fiber Type	-	Panda PM
Output Wavelength	nm	1310, 1550 or external input
PER Dynamic Range	dB	> 30
PER Accuracy	dB	± 0.3
PER Resolution	dB	0.01
Angle Accuracy	deg	± 1
Angle Resolution	deg	0.15
IL Accuracy	dB	± 0.05
IL Resolution	dB	0.01
Absolute Power Accuracy	dB	± 0.25 ¹
Absolute Power Resolution	dB	0.01
Measurement Time	s	< 2.5
Remote Interface	-	USB or Ethernet
Display	-	5" touch screen
Input Voltage	-	100 - 240 V AC, 50 - 60 Hz
Power Consumption	VA	60 maximum

Notes:
¹ at -10 dBm

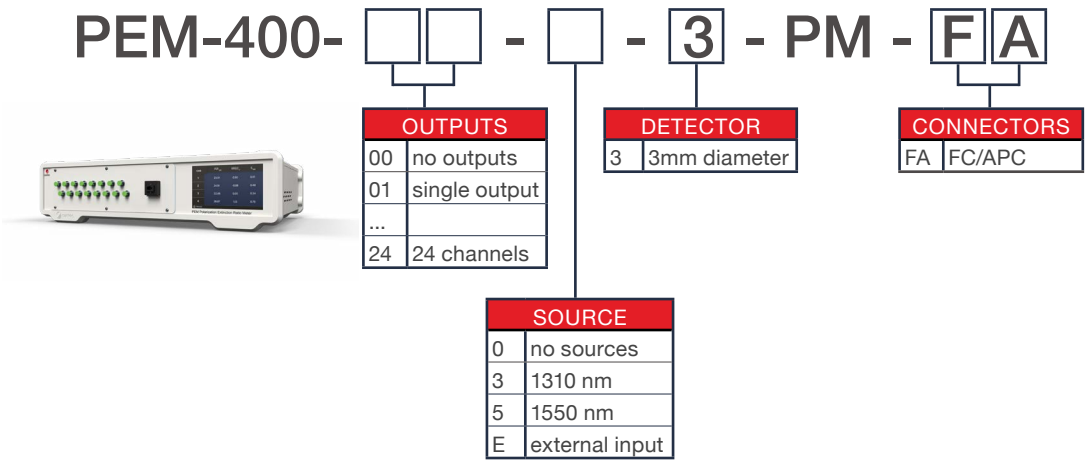
Mechanical / Environmental Specifications

Parameter	Specification	
Chassis Size	2U half rack (single or no outputs)	2U full rack (multichannel)
Unit Dimensions W x H x D (cm) ¹	22.5 x 9 x 32.5	45 x 9 x 32.5
Unit Weight (kg)	8	12
Shipping Box Dimensions W x H x D (cm)	36.5 x 39 x 53	
Volumetric Weight (kg) ²	15	
Operating Temperature (°C)	0 to 40	
Storage Temperature (°C)	-40 to 70	
Humidity (Non-condensing)	Maximum 95% RH from 0 to 40°C	

Notes:
¹ excluding removable rubber bezels. Add 1.5 cm to W and 3.5 cm to H with the removable rubber bezels.
² W*H*D / 5000

Ordering Scheme & Instructions

1. Configure PEM-400 PER Meter



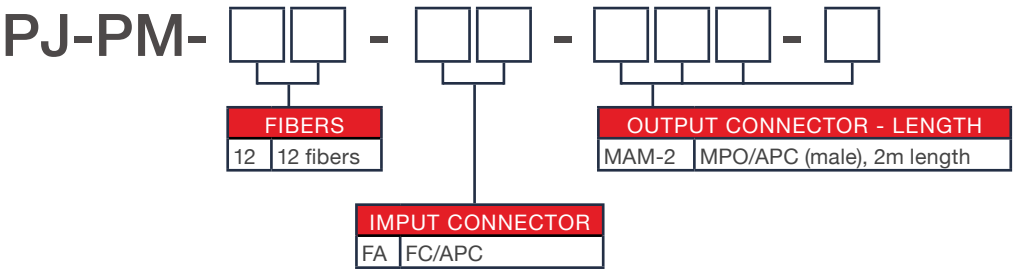
2. Add Accessories

Slide Detector Adapters



* Other detector adapters available upon request including customized fiber array detector adapters.

Polarizing Jumpers



FIBERS

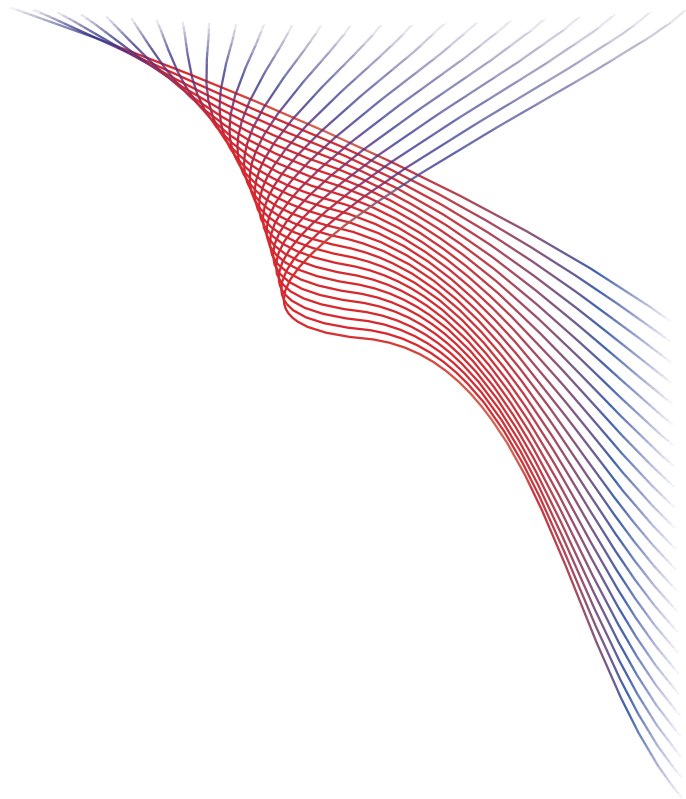
1212 fibers

OUTPUT CONNECTOR - LENGTH

MAM-2MPO/APC (male), 2m length

INPUT CONNECTOR

FAFC/APC



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